

AMENDMENT TO THE CLAIMS

1.(currently amended): A routing information mapping device, comprising:

a transmitting unit transmitting Open Shortest Path First packets with information in the options field of the packets about whether a self-device belongs to a connection-oriented network;

a receiving unit extracting information about whether another device from which a packet is received belongs to the connection-oriented network and information about a configuration of a network from the device; and

a tree generation unit generating a routing tree of a network that clearly indicates a device belonging to the connection-oriented network, based on the information extracted by the receiving unit.

2.(original): The routing information mapping device according to claim 1, further comprising:

a judgment unit judging whether the self-device is an edge device of the connection-oriented network, based on the routing tree of the network.

3. (original): The routing information mapping device according to claim 2, further comprising:

an outside network information acquisition unit obtaining information about an outside network connected to the connection-oriented network from both the routing tree and information about the edge device of the connection-oriented network.

4.(original): The routing information mapping device according to claim 3, further comprising:

a mapping unit generating a table for relating routing information of the connection-oriented network to routing information of the outside network connected to the self-device if the self-device is the edge device.

5.(original): The routing information mapping device according to claim 1, wherein said transmitting unit attaches information about a connection protocol used by the self-device to the packet and transmits the information.

6.(original): The routing information mapping device according to claim 1, comprising:
a server unit receiving both information about a configuration of the network and information about whether the self-device belongs to the connection-oriented network from each device and transmitting both the information about the configuration of the network and information about whether each device belongs to the connection-oriented network to a requesting device at a request of each device.

7.(original): The routing information mapping device according to claim 6, wherein said sever unit receives information about a connection protocol used by each device from each device, stores the information and transmits the information to the requesting device at the request of each device.

8.(original): The routing information mapping device according to claim 1, wherein the packet is transmitted/received using a routing protocol.

9.(original): The routing information mapping device according to claim 1, wherein the packet is transmitted/received using a connection protocol.

10.(original): The routing information mapping device according to claim 4, wherein the table for relating routing information of the connection-oriented network to routing information of the outside network connected to the self-device that is transmitted from another device is used in the self-device as routing information.

11.(original): The routing information mapping device according to claim 10, wherein if the tables are obtained from the plurality of other devices, a cost of a route of the network from which the table is obtained is calculated and the table transmitted via the route with an optimal cost is used.

12.(currently amended): A routing information mapping method, comprising:

(a) transmitting [[a]] an Open Shortest Path First packet with information in the options field of the packet about whether a self-device belongs to a connection-oriented network;

(b) extracting both information about whether another device from which a packet is received belongs to the connection-oriented network and information about a configuration of a network from the other device; and

(c) generating a routing tree of the network that clearly indicates a device belonging to the connection-oriented network, based on the information extracted in step (b).

13.(original): The routing information mapping device according to claim 12, further comprising:

(d) judging whether the self-device is an edge device of the connection-oriented network, based on the routing tree of the network.

14.(original): The routing information mapping method according to claim 13, further comprising:

(e) obtaining information about an outside network connected to the connection-oriented network from both the routing tree and information about the edge device of the connection-oriented network.

15.(original): The routing information mapping method according to claim 14, further comprising:

(f) generating a table for relating routing information of the connection-oriented network to routing information of the outside network connected to the self-device if the self-device is the edge device.

16.(original): The routing information mapping method according to claim 12, wherein in step (a), information about a connection protocol used by the self-device is attached to the packet and is transmitted.

17.(original): The routing information mapping method according to claim 12, further comprising:

(g) receiving both information about the configuration of the network and information about whether the self-device belongs to the connection-oriented network from each device, storing the obtained information and transmitting both the information about the configuration of the network and information about whether each device belongs to the connection-oriented network to a requesting device at a request of each device.

18.(original): The routing information-mapping method according to claim 17, wherein in step (g), information about a connection protocol used by each device is received from each device, the information is stored and the information is transmitted to the requesting device at the request of each device.

19.(original): The routing information mapping method according to claim 12, wherein the packet is transmitted/received using a routing packet.

20.(original): The routing information mapping method according to claim 12, wherein the packet is transmitted/received using a connection packet.

21.(original): The routing information mapping method according to claim 15, wherein

the table for relating routing information of the connection-oriented network to routing information of the outside network connected to the self-device that is transmitted from another device is used in the self-device as routing information.

22.(original): The routing information mapping method according to claim 21, wherein if the tables are obtained from the plurality of other devices, a cost of a route of the network from which the table is obtained is calculated and the table transmitted via a route with an optimal cost is used.

23.(currently amended): A storage medium on which is recorded a program for enabling a processor to execute routing information mapping, said process comprising:

(a) transmitting [[a]] an Open Shortest Path First packet with information in the options field of the packet about whether a self-device belongs to a connection-oriented network;

(b) extracting both information about whether another device from which a packet is received belongs to the connection-oriented network and information about a configuration of the network from the device; and

(c) generating a routing tree of the network that clearly indicates the device belonging to the connection-oriented network, based on the information extracted in step (b).

24.(original): The storage medium according to claim 23, said process further comprising:

(d) judging whether a self-device is an edge device of the connection-oriented network, based on the routing tree of the network.

25.(original): The storage medium according to claim 24, said process further comprising:

(e) obtaining information about an outside network connected to the connection-oriented network from both the routing tree and information about the edge device of the connection-oriented network.

26.(original): The storage medium according to claim 25, said process further comprising:

(f) generating a table for relating routing information of the connection-oriented network to routing information of the outside network connected to the self-device if the self-device is the edge device.

27.(original): The storage medium according to claim 23, wherein
in step (a), information about a connection protocol used by the self-device is attached to the packet and is transmitted.

28.(original): The storage medium according to claim 23, said process further comprising:

(g) receiving both information about the configuration of the network and information about whether the self-device belongs to a connection-oriented network from each device, storing the obtained information and transmitting both the information about the

configuration of the network and information about whether each device belongs to the connection-oriented network to a requesting device at a request of each device.

29.(original): The storage medium according to claim 28, wherein
in step (g), information about a connection protocol used by each device is received from each device, the information is stored and the information is transmitted to the requesting device at the request of each device.

30.(original): The storage medium according to claim 23, wherein
the packet is transmitted/received using a routing packet.

31.(original): The storage medium according to claim 23, wherein
the packet is transmitted/received using a connection packet.

32.(original): The storage medium according to claim 23, wherein
a table for relating routing information of the connection-oriented network to routing information of an outside network connected to the self-device that is transmitted from another device is used in the self-device as routing information.

33.(original): The storage medium according to claim 23, wherein
if a plurality of tables are obtained from the plurality of other devices, a cost of a route of the network from which the table is obtained is calculated and the table transmitted via the route with an optimal cost is used.